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EXAMINER

STEVENS, THOMAS H

ART UNIT PAPER NUMBER

2123

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/904,982

Applicant(s)

RICHEY ET AL.

Examiner

Thomas H. Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-53 were examined.

#### *Drawings*

2. New corrected drawings compliance with 37 CFR 1.121(d) are required in this application because they're unclear to read. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. Corrected drawings (drawings 3-5) are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

#### *Claim Interpretation*

3. Office personnel are to give claims their "**broadest reasonable interpretation**" in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See \*also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow") .... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed .... An essential purpose of patent examination is to fashion claims that are precise, clear,

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correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process. The examiner interprets sequences a packets or Internet-based protocols (i.e., TCP/IP).

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 10 and 44-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "real-life" is unclear within the context of the claim. The examiner assumes this statement to mean "real-time". Clarification is suggested. The word "authoring" is unclear.

### ***Claim Rejections - 35 USC § 103***

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-53 are rejected under 35 U.S.C. 103(a) as unpatentable by Sato (U.S. 6,539,498 (2003)) in view of Schuster et al., (U.S. Patent 6,170,075 (2001)). Sato teaches a method of detecting causes of a computer failure on real devices; but doesn't teach communication sequences. Schuster et al., teaches a method and apparatus for improving the speed and quality of end-to-end data or real-time media transmissions over an Internet (abstract), which involves a communication of sequences (column 12, 17-20). At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Schuster et al. by Sato since it would be advantageous to integrate server-based commands to implement and optimize a local or metropolitan area network.

Claim 1. A method for creating a simulation (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5) comprising the steps of: monitoring communication between an end device and a real device during a communication sequence (Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1), said communication comprising a plurality of line-commands (Schuster: column 12, lines 1-20) from said end device that

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are directed to said real device, and a plurality of outputs from said real device (Sato: column 8, lines 54-65), each of said outputs generated in response to one of said line-commands (Schuster: column 12, lines 1-20); capturing said communication between said end device and said real device (Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15); and generating a simulation application based on said communication associated with said communication sequence (Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively), said simulation application able to present an identical output from said real device that corresponds to a particular line-command from said plurality of line-commands (Schuster: column 12, lines 1-5).

Claim 2. The method as described in Claim 1, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) wherein said method comprises the further step of: summarizing said plurality of line commands in a summary list, said summary list comprising each of said plurality of line-commands (Schuster: column 12, lines 1-5) as inputted into said real device along with a corresponding description.

Claim 3. The method as described in Claim 1, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) wherein said method comprises the further step of: grouping said plurality of line-commands into a series of steps, each of said

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series of steps comprising at least one line-command from said plurality of line-commands (Schuster: column 12, lines 37-60).

Claim 4. The method as described in Claim 1, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) wherein said method comprises the further step of: editing of said plurality of line-commands, said plurality of line-commands reflecting and including edited line-commands (Schuster: column 12, lines 37-60).

Claim 5. The method as described in Claim 4, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) wherein said method comprises the further step of: introducing new line-commands into corresponding steps from said series of steps (Schuster: column 12, lines 37-60).

Claim 6. The method as described in Claim 5, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) wherein said method comprises the further steps of: providing step text for each of said series of steps, said step text including a short description associated with a corresponding step from said series of steps (Schuster: column 12, lines 37-60); and providing step detail for each of said series of

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steps, (Schuster: column 12, lines 37-60) said step detail including detailed instructions and information associated with a corresponding step from said series of steps.

Claim 7. The method as described in Claim 6, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) wherein said method comprises the further step of: re-running said communication sequence (Schuster: column 12, lines 37-60), such that said plurality of line-commands are inputted into said real device (Sato: column 5, lines 56-60) said plurality of line-commands including edited line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) and said new line-commands.

Claim 8. The method as described in Claim 7, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) wherein said method comprises the further step of: checking for invalid line-commands (Schuster: column 11, lines 35-41).

Claim 9. The method as described in Claim 8, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) wherein said method comprises the further step of: determining all permutations for each of said series of steps, wherein each



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permutation comprises a unique combination and order of line-commands (Schuster: column 13, 30-47) and their corresponding outputs from said real device.

Claim 10. The method as described in Claim 9, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15; Schuster: column 13, 30-47) wherein said simulation application is an exercise that simulates a real-life (Schuster: column 14, lines 61-67) interaction with said real device, said simulation application presenting real-life (Schuster: column 14, lines 61-67) outputs to command-line inputs into said real device in a simulated environment, said real-life outputs (Schuster: column 14, lines 61-67) corresponding to said plurality of outputs as determined by said method, said real-life outputs presented along with said step text and said step detail in an instructional exercise format.

Claim 11. The method as described in Claim 9, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: column 8, lines 54-65; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15; Schuster: column 13, 30-47; Schuster: column 14, lines 61-67) wherein said method is performed at a server (Schuster: column 12, lines 13-20) coupled to said end device and said real device.

Claim 12. A method for creating a simulation comprising the steps of (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5): monitoring communication between an

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end device and a real device during a communication sequence, (Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1) said communication sequence relating to a real-life interaction with said real device, said communication comprising a plurality of inputs from said end device that is directed to said real device (Sato: column 8, lines 54-65), and a plurality of outputs (Schuster: column 10, lines 55-58) from said real device to said plurality of inputs, each of said plurality of outputs generated in response to one of said plurality of inputs; capturing said communication between said end device and said real device (Schuster: column 12, lines 13-15); determining sequence, forming all permutations for said communication a plurality of permutations for said communication sequence, (Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) each of said plurality of permutation comprising a unique combination and order of inputs and their corresponding outputs; and generating a simulation application based on said communication associated with said communication sequence, (Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) said simulation application able to present an identical output to a particular input corresponding to a particular permutation for said communication sequence.

Claim 13. The method as described in Claim 12, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) wherein said method comprises the further steps of: checking for invalid inputs

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(Schuster: column 11, lines 35-40) in said and providing notification at said end invalid inputs-device of said plurality of inputs.

Claim 14. The method as described in Claim 12, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) wherein said method comprises the further steps of: flagging predetermined items of interest; and providing notification at said end device of said predetermined items of interest (Sato: column 5, lines 25-30).

Claim 15. The method as described in Claim 12, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) wherein said method comprises the further steps of: querying said real device for the full syntax of each input in said plurality of inputs (Sato: column 5, lines 3-30); and replacing each input with their corresponding full syntax (inherent).

Claim 16. The method as described in Claim 12, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively)

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wherein said method is performed at a server coupled to said end device and said real device (Schuster: columns 6, lines 21-52).

Claim 17. The method as described in Claim 12, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) wherein said real device is any Internet network device (Schuster: columns 6, lines 29-30).

Claim 18. The method as described in Claim 12, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) wherein said real device is an Internet content provider (Schuster: columns 6, lines 29-30).

Claim 19. The method as described in Claim 12, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) wherein said communication is in the form of a command-line interface with line-commands (Schuster: column 12, lines 1-20), each of said plurality of inputs corresponding to one of a plurality of line-commands (Schuster: column 12, lines 1-20).

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Claim 20. The method as described in Claim 19 (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 1-20) wherein said method comprises the further steps of: grouping said plurality of line-commands into a series of steps, each of said series of steps comprising at least one line-command from said plurality of line-commands; editing of said plurality of line-commands (Schuster: column 12, lines 1-20), said plurality of line-commands reflecting and including edited line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47); introducing new line-commands into corresponding steps from said series of steps; providing step text for each of said series of steps, said step text including a short description associated with a corresponding step from said series of steps (Schuster: column 12, lines 26-48); providing step detail for each of said series of steps, said step detail including detailed instructions and information associated with a series of steps; corresponding step from said communication sequence, (Schuster: column 12, lines 37-60) such that said plurality of line-commands are inputted into said real device, said plurality of line-commands including edited line-commands and said new line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47); re-running said checking for invalid line-commands (Schuster: column 11, lines 34-40; column 14, lines 55-60); and automatically determining all permutations for each of said series of steps (Sato: column 8, lines 57-67), wherein each permutation comprises a unique combination and order of

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line-commands (Schuster: column 13, 30-47) and their corresponding outputs from said real device.

Claim 21. The method as described in Claim 20, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 1-20; Schuster: column 12, lines 26-48 Sato: column 8, lines 57-67) wherein said simulation application is a computer based exercise that simulates said real-life interaction with said real device, said simulation application presenting real-life outputs (Schuster: column 10, lines 56-58) to command-line inputs into said real device in a simulated environment, said real-life outputs as determined by said method, said real-life outputs presented along with said step text and said step detail in an instructional exercise format.

Claim 22. A computer system (Sato: column 7, lines 35-37) comprising a processor, a memory unit, and a display screen wherein said memory contains instructions that when executed implement a method of creating a simulation comprising the steps of: monitoring communication between an end device and a real device (Sato: column 8, lines 54-65) during a communication sequencer said communication comprising a plurality of line-commands ( from said end device that are directed to said real device, and a plurality of outputs (Schuster: column 10, lines 55-58) from said real device, each of said plurality of outputs generated in response to one of said plurality of line-

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commands; capturing said communication between said end device and said real device (Schuster: column 6, lines 1-52); and simulation application based on said communication associated with said communication sequence, (Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) said simulation application able to present an identical output from said real device (Sato: column 7, lines 58-61) that corresponds to a particular line-command from said plurality of line-commands (Schuster: column 12, lines 37-60).

Claim 23. The computer system as described in Claim 22, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60) wherein said method comprises the further step of: summarizing said plurality of line commands in a summary list (Schuster: column, lines 13-48), said summary list comprising each of said plurality of line-commands as inputted into said real device (Sato: column 7, lines 58-61) along with a corresponding description.

Claim 24. The computer system as described in Claim 22, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60) wherein said method comprises the further step of: grouping said plurality of line-commands

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(Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) into a series of steps, each of said series of steps comprising at least one line-command from said plurality of line-commands.

Claim 25. The computer system as described in Claim 22, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60) wherein said method comprises the further step of: editing (Schuster: column 12, lines 37-60) of said plurality of line-commands, said plurality of line-commands reflecting and including edited line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47).

Claim 26. The computer system as described in Claim 25, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60) said method comprises the further step of: introducing new line-commands (Schuster: column 13, 30-47) into corresponding steps from said series of steps.

Claim 27. The computer system as described in Claim 26, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60) wherein said method comprises the further steps of: providing step text for each of said series of steps, said step text including a short description associated with a corresponding step



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from said series of steps (Schuster: column 12, lines 13-48; with Sato figures 1-3); and providing step detail for each of said series of steps (Schuster: column 12, lines 13-48; with Sato figures 1-3), said step detail including detailed instructions and information associated with a corresponding step from said series of steps.

Claim 28. The computer system as described in Claim 27, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60) wherein said method comprises the further step of: re-running said communication sequence, (Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively) such that said plurality of line-commands are inputted into said real device, said plurality of line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) including edited line-commands and said new line-commands.

Claim 29. The computer system as described in Claim 28, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) wherein said method comprises the further step of: checking for invalid line-commands (Schuster: column 11, lines 35-41).

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Claim 30. The computer system as described in Claim 29, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 11, lines 35-41) wherein said method comprises the further step of: determining all permutations for each of said series of steps, wherein each permutation comprises a unique combination and order of line-commands (Schuster: column 13, 30-47) and their corresponding outputs from said real device.

Claim 31. The computer system as described in Claim 30, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 11, lines 35-41) wherein said simulation application is an exercise that simulates a real-life interaction with said real device, said simulation application presenting real-life outputs (Schuster: column 10, lines 55-58) command-line inputs into said real device in a simulated environment, said real-life outputs corresponding to said plurality of outputs as determined by said method, said real-life outputs presented along with said step text and said step detail in an instructional exercise format (Sato: column 8, lines 25-31).

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Claim 32. The computer system as described in Claim 30, (Sato: column 7, lines 35-37; Sato: column 8, lines 54-65; Schuster: column 10, lines 55-58; Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively; Schuster: column 12, lines 37-60; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 11, lines 35-41) wherein said method is performed at a server coupled (Schuster: columns 9-10, lines 61-67 and column 11, lines 64-67) to said end device and said real device.

Claim 33. A computer-readable medium (Sato: column 7, lines 35-37) executable instructions for performing comprising computer a method of creating a steps of: an end device and a simulation, said method comprising the monitoring communication between real device (Sato: columns 8-9, lines 66-67 and 1-37, respectively) during communication comprising a plurality of line-commands from said end device that are directed to said real device, and a plurality of outputs from said real device (Schuster: column 10, lines 56-65), each of said plurality of outputs generated in response to one of said plurality of line-commands; capturing said communication between said end device and said real device (Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67); and generating a simulation application based on said communication associated with said communication sequence, (Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67) said simulation application able to present an identical output (Schuster: column 10, lines 56-65) from said real device that corresponds to a particular line-command from said plurality of line-commands.

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Claim 34. The computer-readable medium as described in Claim 33, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67) wherein said method comprises the further step of: summarizing said plurality of line commands in a summary

list, (Schuster: column, lines 13-48) said summary list comprising each of said plurality of line-commands as inputted into said real device (Sato: column 7, lines 58-61) along with a corresponding description.

Claim 35. The computer-readable medium as described in Claim 33 (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67) wherein said method comprises the further step of: grouping said plurality of line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) into a series of steps, each of said series of steps comprising at least one line-command from said plurality of line-commands.

Claim 36. The computer-readable medium as described in Claim 33, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67) wherein said method comprises the further step of: editing (Schuster: column 12, lines 37-60) of said

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plurality of line-commands, said plurality of line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) reflecting and including edited line-commands.

Claim 37. The computer-readable medium as described in Claim 36, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) wherein said method comprises the further step of: introducing new line-commands into corresponding steps from said series of steps (Schuster: column 12, lines 13-48; with Sato figures 1-3; Sato: columns 6-7, lines 66-67 and 1-3).

Claim 38. The computer-readable medium as described in Claim 37, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) wherein said method comprises the further steps of: providing step text for each of said series of steps; said step text including a short description associated with a corresponding step from said series of steps; and providing step detail for each of said series of steps, (Schuster: column 12, lines 13-48; with Sato figures 1-3; Sato: columns 6-7, lines 66-67 and 1-3) said step detail including detailed instructions (Sato: column 8, lines 25-31) and information associated with a corresponding step from said series of steps.

Claim 39. The computer-readable medium as described in Claim 38, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 13-48; with Sato figures 1-3; Sato: columns 6-7, lines 66-67 and 1-3; Sato: column 8, lines 25-31) wherein said method comprises the further step of: automatically re-running said communication sequence (Schuster: columns 11 and 12, lines 10-15 and 15-20, respectively), such that said plurality of line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) are inputted into said real device, said plurality of line-commands including edited line-commands and said new line-commands.

Claim 40. The computer-readable medium as described in Claim 38, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 13-48; with Sato figures 1-3; Sato: columns 6-7, lines 66-67 and 1-3; Sato: column 8, lines 25-31) wherein said method comprises the further step of: (Schuster: column 11, lines 35-41) checking for invalid line-commands.

Claim 41. The computer-readable medium as described in Claim 40, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines

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56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 13-48; with Sato figures 1-3; Sato: columns 6-7, lines 66-67 and 1-3; Sato: column 8, lines 25-31; Schuster: column 11, lines 35-41) wherein said method comprises the further step of: determining all permutations for each of said series of steps, wherein each permutation comprises a unique combination and order of line-commands (Schuster: column 13, 30-47) and their corresponding outputs from said real device.

Claim 42. The computer-readable medium as described in Claim 41, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 13-48; with Sato figures 1-3; Sato: columns 6-7, lines 66-67 and 1-3; Sato: column 8, lines 25-31; Schuster: column 11, lines 35-41) wherein said simulation application is an exercise that simulates a real-life interaction with said real device, said simulation application presenting real-life outputs to command-line inputs into said real device in a simulated environment, said real-life outputs corresponding to said plurality of outputs as determined by said method, said real-life outputs (Schuster: column 10, lines 55-58) presented along with said step text and said step detail in an instructional exercise format (Sato: column 8, lines 25-31).

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Claim 43. The computer-readable medium as described in Claim 41 (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 13-48; with Sato figures 1-3; Sato: columns 6-7, lines 66-67 and 1-3; Sato: column 8, lines 25-31; Schuster: column 11, lines 35-41) wherein said method is performed at a server coupled (Schuster: columns 9-10, lines 61-67 and column 11, lines 64-67) to said end device and said real device.

Claim 44. A simulation (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5) authoring mechanism for creating a simulation comprising (Sato: column 5, lines 1-30): means for monitoring communication between an end device and a real device during a communication sequence (Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1), said communication comprising a plurality of line-commands (Schuster: column 12, lines 1-20) from said end device that are directed to said real device, and a plurality of outputs from said real device, each of said plurality of outputs generated in response to one said plurality of line-commands (Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15); means for capturing said communication between said end device and said real device (Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67); and means for generating a simulation application based on said communication associated with said communication sequence, (Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67) said simulation application able to present



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an identical output (Schuster: column 10, lines 56-65) from said real device that corresponds to a particular line-command from said plurality of line-commands.

Claim 45. The simulation authoring mechanism as described in Claim 44, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) further comprises: means for summarizing said plurality of line commands in

a summary list, (Schuster: column, lines 13-48) said summary list comprising each of said plurality of line-command as inputted into said real device (Sato: column 7, lines 58-61) along with a corresponding description.

Claim 46. The simulation authoring mechanism as described in Claim 44, (Sato: column 4, lines 61-65; and Schuster: column 10, lines 3-5; Sato: columns 1 and 2, lines 64-67 and 1-6, respectively with figure 1; Sato: column 8, lines 54-65; and Schuster: column 11, lines 10-15) further comprising: means for grouping said plurality of line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) into series of steps, each of said series of steps comprising at least one line-command from said plurality of line-commands.

Claim 47. The simulation authoring mechanism as described in Claim 44, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10,

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lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) further comprising: means for editing of said plurality of line-commands, said plurality of line-commands reflecting and including edited line-commands (Schuster: column 12, lines 37-60).

Claim 48. The simulation authoring mechanism as described Claim 47, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 37-60) further comprising: means for introducing new line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) into corresponding steps from said series of steps.

Claim 49. The simulation authoring mechanism as described in Claim 48, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 37-60) further comprising: means for providing step text for each of said series of steps, said step text including a short description associated with a corresponding step from said series of steps; and means for providing step detail for each of said series of steps, (Schuster: column 12, lines 13-48; with Sato figures 1-3; Sato: columns 6-7, lines

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66-67 and 1-3) said step detail including detailed instructions (Sato: column 8, lines 25-31) and information associated with a corresponding step from said series of steps.

Claim 50. The simulation authoring mechanism as described in Claim 49, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 37-60) further comprising: means for re-running said communication sequence, such that said plurality of line-commands (Sato column 7, lines 14-16; Schuster: column 13, lines 30-47) are inputted into said real device, said plurality of line-commands including edited line-commands and said new line-commands.

Claim 51. The simulation authoring mechanism as described in Claim 50, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 37-60) further comprising: means for checking for invalid line-commands (Schuster: column 11, lines 35-41)

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Claim 52. The simulation authoring mechanism as described in further comprising:

Claim 51(Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 37-60) means for determining all permutations for each of said series of steps, wherein each permutation comprises a unique combination and order of line-commands (Schuster: column 13, 30-47) and their corresponding outputs from said real device.

Claim 53. The simulation authoring mechanism as described in Claim 52, (Sato: column 7, lines 35-37; columns 8-9, lines 66-67 and 1-37, respectively; Schuster: column 10, lines 56-65; Schuster: column 12, lines 13-24 with Sato: column 8, lines 57-67; Sato column 7, lines 14-16; Schuster: column 13, lines 30-47; Schuster: column 12, lines 37-60) wherein said simulation application is an exercise that simulates a real-life interaction with said real device, said simulation application presenting real-life outputs to command-line inputs into said real device in a simulated environment, said real-life outputs corresponding to said plurality of outputs (Schuster: column 10, lines 55-58) as determined by said method, said real-life outputs presented along with said step text and said step detail in an instructional exercise format (Sato: column 8, lines 25-31).

### ***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-

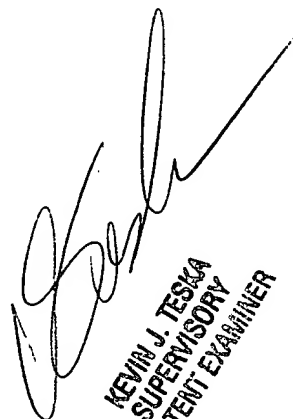
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3715, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at  
(571) 272-3716. Fax number is 571-273-3715

Any inquires of general nature or relating to the status of this application should  
be directed to the Group receptionist whose phone number is (571) 272-1400

January 18, 2005

THS



KEVIN J. TESKA  
SUPERVISORY  
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